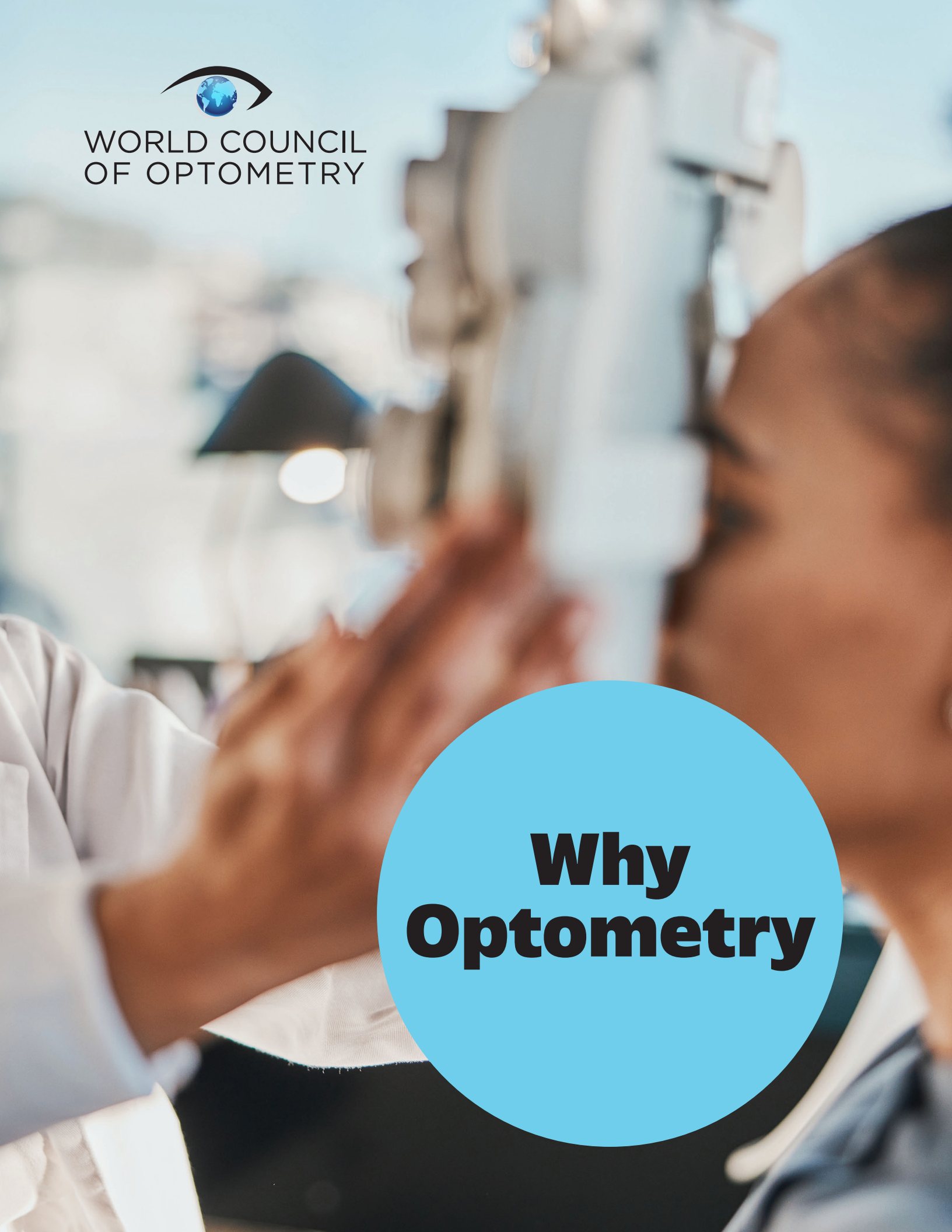
WORLD COUNCIL OF OPTOMETRY



Why Optometry

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'Globally, at least 2.2 billion people have a vision impairment, and of these, at least 1 billion people have a vision impairment that could have been prevented or is yet to be addressed.'

Dr Tedros Adhanom Ghebreyesus
Director-General World Health Organization[1]

Executive Summary

Eye health is of fundamental importance to all health care systems, with unaddressed vision impairment constituting a major public health challenge. Vision impairment can adversely impact a child's education or a person's social well-being and forms an integral part of sustainable development. Of the 2.2 billion people with impaired vision, the majority of these suffer from a refractive error affecting the ability to see details clearly, such as myopia (short-sightedness) and presbyopia (age-related reading vision dysfunction). Other eye conditions which are increasing in prevalence, such as glaucoma, age-related macular degeneration and diabetic retinopathy, remain undiagnosed due to poor accessibility and affordability, especially in low income countries.

Correction and prevention, however, are easy and cost effective. Optometrists are the key provider of refractive error correction through the provision of spectacles and contact lenses. They are university educated, autonomous and easily accessible to the community and therefore well suited to addressing the burden of eye diseases and conditions. Optometry should be at the forefront of any eye care related public health initiative.

The scope of optometry can be integrated into all levels of the health care system by recognizing the profession; providing strong educational support; enhancing legislation and regulations; expanding the workforce through increased graduate numbers; and investing in additional care pathways. This investment can increase overall productivity and the efficiency of the eye care model, producing better healthcare outcomes and stronger economies.

Steps for Integrating Optometry into Health Care Systems

Recognize the Profession

Develop Education and Competencies

Enhance Legislation

Expand the Workforce

Invest in Care Pathways

The WCO

The World Council of Optometry (WCO) is an international membership-based non-profit organization for optometric associations, individual optometrists and industry professionals. WCO covers six geographic areas: Africa, Asia Pacific, Eastern Mediterranean, Europe, Latin America, and North America.

Through collaboration with key stakeholders, WCO can enhance and increase optometry's role in responding to significant unmet eye health and vision care needs worldwide.

The WCO's Strategy for Impact

https://worldcouncilofoptometry.info

WCO Mission We advance and promote optometry, global eye health and vision care through collaboration education and advocacy.

WCO Inputs

- Board of Directors
- Education Committee
- Legislation, Registration & Standards Committee
- Public Health Committee
- WCO Members
- Staff Team & Project Budgets

WCO Audiences

- Public
- Patients
- WCO Members
- Partners
- External Stakeholders

Results

1. People educated about eye health
2. People educated and confident about how to access care
3. Stronger networks
4. Developed leaders
5. Prepared optometrists
6. Enabling legislation
7. Effective workforce
8. WCO/Optometry strategically positioned

Impact

1. Expanded scope of practice and capacity in optometry
2. Optometry is recognized as part of the healthcare team
3. More people accessing eye care via optometrists

WCO Vision Accessible eye health and vision care for everyone

Background

In 2019, the World Health Organization published the World Report on Vision (WRV) outlining the challenges facing eye health and vision care delivery worldwide.[1] The report demonstrates the magnitude of vision-related conditions affecting the global population and how these negatively impact on health, well-being and productive outcomes, especially in vulnerable and isolated communities.

Eye health is 'the state when vision, ocular health, and functional ability are maximized, thereby contributing to overall health and well-being, social inclusion, and quality of life'.[2]

Due to changing global demographics, such as an aging population and the increasing prevalence of myopia, eye health challenges will increase dramatically in the coming years. A lack of coordinated response and insufficient eye care workforce will see continued gaps in the diagnosis and treatment of vision impairment, leading to a variety of societal repercussions.

The United Nations General Assembly calls for member states to 'ensure access to eye care services for their population and to mobilize the necessary resources and support...to contribute to global efforts to reach, by 2030, at least 1.1 billion people who have a vision impairment and currently do not have access to the eye care services they need'.[3]

The World Health Organization urges regulators and health practitioners to adopt Integrated People-centered Eye Care (IPEC) as an approach to strengthen health systems and enhance service delivery to address the population's eye health needs. It recognizes that the profession of optometry is well placed to meet these challenges through the provision of a high standard of eye care and their accessibility within the community.

The World Council of Optometry (WCO) has produced this document with the aim of providing healthcare policy makers, regulators, administrators, non-governmental organizations (NGOs) and other governmental agencies with an overview of the scope of practice of the optometrist; how they relate to the eye health needs of the global community; and the important role optometry plays in addressing IPEC, the World Report on Vision and associated UN resolutions.

Common eye conditions that can cause visual impairment

Refractive error (blurred vision) | **Cataract** (cloudy lens) | **Corneal Disease** (infection and opacity) | **Glaucoma** (optic nerve damage) | **Dry Eye** (and associated conditions) | **AMD** (leading cause of blindness +50) | **Diabetes** (retinopathy and vision loss)

What is an Optometrist?

Optometry is a healthcare profession that is autonomous, educated, and regulated (licensed/registered), and optometrists are the primary healthcare practitioners of the eye and visual system who provide comprehensive eye and vision care, which includes refraction and dispensing, detection/diagnosis and management of disease in the eye, and the rehabilitation of conditions of the visual system.[4]

Optometrists utilize a range of diagnostic, technical interventions and direct patient care to address causes of visual impairment. They provide diagnosis, management and treatment services for disorders of the eyes and visual system. They counsel on eye care and prescribe optical aids or other therapies for visual disturbance.[5]

Education

An optometrist has successfully undertaken an advanced level of relevant higher education, with the award of a bachelor's degree or higher from a tertiary-level educational institution, ensuring their skills align with the high standards expected by the WHO's Eye Care Competency Framework advanced and expert level.

Standards

In many countries, optometrists must be registered to practice optometry. This registration is based on recognition of their qualifications, adherence to high practice and ethical standards, and compliance with relevant legislation.

Five domains of Optometry Competency

1. Refractive Error

2. Visual Function Assessment

3. Ocular Health and Ocular Disease

4. Public Health

5. Professional Practice

WCO has produced the **Competency Framework for Optometry** document which enables providers and educators to reference the required skills and competency levels for optometry, ensuring optometry can make a maximal contribution to health care.[6]

Optometry Competencies

1. Refractive error: assessment and management: subjective and objective refraction, near point and presbyopia, spectacles, contact lenses, myopia management, cycloplegia.

2. Visual function assessment and management: binocular vision, vision impairment assessment, vision rehabilitation, vision development, vision and learning, color vision, occupational visual assessments, populations with special needs.

3. Ocular Health and Ocular Disease: Assessment and Management: anterior and posterior segment assessment utilizing biomicroscopy, topography, direct and indirect ophthalmoscopy, optical coherence tomography, ultrasonography, visual field testing including perimetry, neurologic evaluation including pupillary testing, color vision, signs and symptoms of ocular disease, ocular signs of systemic disease, pharmacology, management, referral diagnostic pharmaceutical agents (DPA), therapeutic pharmaceutical agents (TPA).

4. Public health: the demographics, social determinants of health and epidemiology of the community and the patient population, information on visual and general health and welfare, current trends, and topical issues regarding eyes, vision, health care, and health literacy.

5. Professional practice: ethics, communication, case history, examination plans, management plans, record-keeping, referral documents, and reports to other members of the patient's health care team.

Why is eye health so important?

Globally, 1 billion people have a vision impairment that is easily prevented or treated, as recognized by the WHO, yet it remains unaddressed.[1] Unfortunately, significant inequities in access to affordable vision care exist. The burden of preventable vision loss is greater in areas of social and economic disadvantage, in rural areas, for older people, ethnic minorities, indigenous peoples, and women, and although predominantly an issue in low-middle income countries, still exists in more well-developed eye care systems. Providing greater community access to affordable optometry services widens the scope of accessibility and mitigates inequity.

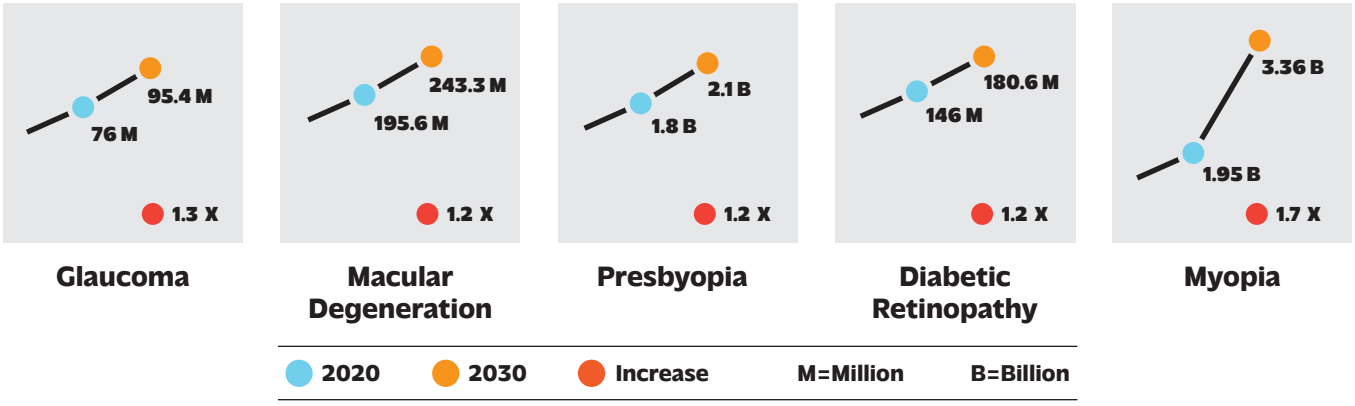
'A lack of coordination, regulation and a systematic integration, resulting in persistent service gaps and inequalities and a lack of standardization of care in many low-and middle-income countries' is a barrier to accessible eye care."[1]

Future Considerations

Virtually everyone will experience at least one eye condition in their lifetime, often requiring only simple treatments at the primary level. For example, dry eye, which can substantially impact vision, is easily reduced by lubricant eye drops; dietary management can prevent severe diabetes related vision loss; and spectacles can instantly provide visual clarity. Population growth and aging will significantly increase the absolute number of people with detrimental eye conditions. For example, by 2040, 67 million people with open angle glaucoma will remain undetected if public health policies are not modified, representing a 50% increase from the 2020 estimate.[7] Urbanization, lifestyle, behavioral choices and environmental changes are all expected to have further impact and may lead to limited access at the community level.

The World Health Assembly has endorsed global targets for effective coverage of refractive errors, requiring a 40% increase in effective coverage of refractive error by 2030.[8] Countries already having a 60% or higher effective coverage rate,

Estimated increases between 2020-2030



Why is eye health so important? (cont)

are encouraged to strive for universal coverage. Countries should also aim for an equal increase in coverage of distance and near refractive error across their population. Optometrists are the key drivers in refractive error correction and essential in meeting this effective coverage rate. A lack of recognition and engagement with optometry will impede the WHO's achievement of this goal.

Productivity and Education

Uncorrected refractive error (URE) can impact the educational and social attainment of individuals.[9] Myopia and astigmatism are the leading causes of URE and vary according to geographic location.[9] From an early age, vision screening, with subsequent refractive or amblyopic intervention, can enhance a child's literacy and academic performance. Likewise, once in the workforce, vision disruption can affect performance and career advancement.

Moderate to severe vision impairment and blindness cause a global productivity loss of US $411 billion annually or the equivalent of 0.3% GDP.[10] Addressing this gap could cost as little as $24.8 billion US dollars, making this intervention one the most cost-effective strategies for improving eye health.[1] Preventing eye disease, correcting refractive errors and overall eliminating treatable vision impairment will lead to improved productivity and reduce informal and intangible costs.[1] Optometry is an important asset in achieving these goals.

Meeting SDGs and UHC

Eye health is included in the Sustainable Development Goal (SDG) 3 to 'ensure healthy lives and promote well-being for all at all ages'. Poor vision and sub-standard eye care can have a profound impact on multiple SDGs, hindering development due to poverty, hunger, education, gender and other inequalities, employment outcome, and economic growth. Unaddressed vision impairments create a substantial barrier to sustainable development, having detrimental effects on livelihoods, education and socio-economic conditions.[11]

Meeting Universal Health Coverage, in remains a challenge to all health systems. Unfortunately, limited numbers of eye care professionals create an obstacle to equitable, accessible, and quality eye care.[12] For example, in high income countries, one optometrist serves around 7,000 people, whereas in Sub-Saharan Africa one optometrist serves over 50,000.[13] The expected increase in uncorrected refractive error and potentially blinding diseases calls for an adequately qualified eye care workforce.[14] Expanding optometry training institutions, increasing graduate levels, and maintaining relevant standards and competencies will lead to a positive impact on the numbers and quality of the eye care workforce.

Eye Health and Sustainable Development Goals

un.org/sustainabledevelopment

Why is eye health so important? (cont)

Managing Eye Disease

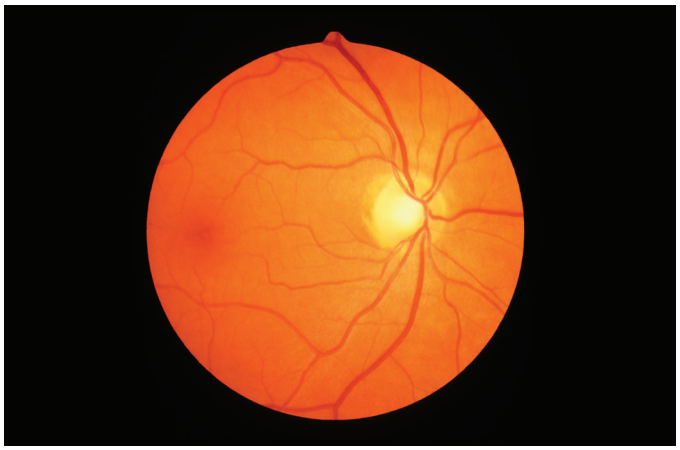
Optometrists are proficient in the detection, and often treatment, of eye diseases such as cataract, age-related maculopathy and glaucoma, and can efficiently diagnose and co-manage systemic and secondary disease such as diabetes and neurological conditions. With global prevalence of diabetes set to increase in the coming years, diabetic eye disease and retinopathy is poised to become a leading cause of preventable blindness with 1 in 3 diabetic patients likely to develop ocular involvement.[15] Early detection and intervention by an optometrist can mitigate the devastating impact of this and other causes of vision loss.

Studies have demonstrated that integrating optometry into primary care roles leads to improved outcomes for patients, a reduction in unnecessary referrals to ophthalmology and shortened patient waiting times. Optometry facilitated glaucoma management programs in the UK have shown a 40-76% reduction in false positive referral rates due to diagnostic accuracy and appropriate triaging.[16] The establishment of minor eye conditions schemes (MECS), also in the UK, whereby GPs are encouraged to refer patients direct to optometrists for acute eye conditions, reduced GP referred attendances to hospital eye services by 26.8% with 64.1% of patients able to be appropriately managed within the optometry clinic.[17] Similarly, the specificity of optometrist-led diabetic retinopathy screening is very high at 99%, compared to other healthcare screeners, resulting in less unnecessary ophthalmology referrals.[18]

Optometry and Ophthalmology

Ophthalmology-led services are mostly delivered at the secondary and tertiary healthcare levels and concentrated in urban settings, often making them more expensive and less accessible. By contrast, optometry-led services are provided at the primary level, making them more accessible for those in rural areas and low-income communities. The position of optometry within communities allows the delivery of accessible quality eye care that reduces the cost burden on tertiary health service systems.[19]

The role of optometry as a powerful co-manager of eye diseases is substantially underutilized in the public health setting, given that 80-90% of eye health conditions can be treated at the primary level.[2] Community based optometric services ensure that referral pathways for eye diseases are mapped correctly, strain on hospital settings alleviated and the financial output on tertiary health systems reduced.



Internal view of the eye.

Why is eye health so important? (cont)

Competencies and Standards

Regulatory standards are important to maintain a high standard of eye care to the public and to ensure that accessibility, quality, inclusivity and outcomes are not compromised. However, many countries suffer from the lack of recognition or regulation of optometry as a profession. This hinders the potential provision of optometric services and limits access to eye care at the primary care level.[13] Fortunately, more countries are recognizing optometry and engaging optometrists to participate more extensively in meeting future demands for eye care.

Variations in optometric scope of practice globally reflect a combination of factors, including legal and regulatory frameworks, professional standards, and educational opportunities. Understanding these variations is essential to ensure that optometrists can practice to the full extent of their training and expertise while meeting the eye care needs of diverse populations.[13]

A well supported, appropriately regulated and efficiently funded optometry profession can increase accessibility, improve equity and enhance the affordability of eye care. Optometry's position in the primary health setting allows it to be readily accessible to the community without the need for complex referral pathways thus providing instant access to corrective vision services and minimizing the resource output for eye care services.

Accessibility

Where advanced eye care is delivered in secondary and tertiary healthcare settings, it potentially restricts access and results in increased inequity of care. Optometry remains more accessible due to many optometrists working in a private practice setting. Where uncorrected refractive error is a major cause of visual impairment, and where population growth is the highest, optometry services can bridge the delivery gap, especially in rural and remote locations, as optometrists are upwardly mobile and operate independently of the hospital system. Furthermore, optometry is at the forefront of developing easily accessible digital health systems such as tele-optometry and AI driven diagnostics which can increase productivity and efficiency of eye health services.[20]

The growing global burden of vision and eye health problems

2.2 Billion global citizens have a vision impairment

1 Billion have a preventable vision impairment

90% are low to middle-income countries

75% are over fifty years of age

55% are females

90% are preventable with early intervention

Why Optometry?

Optometry fulfills the WHO's IPEC criteria and has the education, competencies, accessibility and autonomy to maintain a high standard of eye health in populations, both in individual and collaborative environments. Optometrists engage with other healthcare providers to support the patient in managing their health and mitigating social determinants. Optometrists are integral to community based primary eye care services where enhanced coordination between private sector optometry and public sector healthcare can create a more cost effective and efficient eye care delivery system.

To improve preventable vision impairment and meet the SDGs, UHC and WHO resolutions, governments, institutions and health professionals need to develop strategies to enhance the affordability of and accessibility to eye care. Developing countries may lack a sufficient optometry workforce for accessible and efficient eye care services. A prime strategy is to recognize optometry, provide strong educational support and legislation, increase the number of optometry graduates and integrate optometry into all levels of health delivery.

The WCO affirms its commitment to working with optometric organizations, optometrists, educational institutions, industry, government, and non-government organizations to realize the goals of the World Report on Vision, the UN General Assembly, and the World Health Assembly.

Further information about the educational competencies and regulatory standards recommended for the profession of optometry can be obtained from the WCO.

'Providing equitable access to quality eye health services will require many things, including political will, responsive governments, effective health systems and multisector collaboration. It will also need more and better funding, as the amount and use of eye health funding affects not only the scale, scope and depth of coverage, but also the quality of services, the sustainability and the equity of eye health programs'.[21]

"Optometrists are integral to community based primary eye care services where enhanced coordination between private sector optometry and public sector healthcare can create a more cost effective and efficient eye care delivery system"

Why Optometry? (cont)

Addressing the challenges of vision impairment[2]

Challenges	Strategies
Eye health is essential to achieve Sustainable Development Goals	Re-frame vision as a development issue and enhance accessibility to eye care practitioners
Almost everyone will experience impaired vision or an eye condition during their lifetime	Urgently expand optometry services to meet the rapidly growing eye health need
Eye health is an essential component of Universal Health Coverage	Include optometry and eye health in planning, resourcing, and delivery of health care
The eye health workforce is unable to meet population needs in many countries	Expand service capacity through increased numbers of optometrists, strengthened training and enhanced co-management environments
Eye conditions going undiagnosed due to accessibility issues	Promote eye care through easily accessible community based channels such as optometry
Quality eye health services are not delivered equitably	Improve quality and standards by providing effective, efficient, safe, timely, equitable, and people-centered eye care
Cost-effective vision interventions offer enormous potential to improve the economic outlook of individuals and nations	Major scale up of financial investment in eye health, optometry, and spectacle provision is required
Financial barriers to accessing eye care leave many people behind	Optometry can be integrated into all health levels for efficient eye health delivery including rural and remote regions
Technology and treatment developments offer new tools to improve eye health	Optometry can help maximize coverage, accessibility, quality, efficiency, and affordability through cutting edge technology

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